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SASAN, ARADHANA				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/509,193

Applicant(s)

ZECH, CHRISTINA

Examiner

ARADHANA SASAN

Art Unit

1615

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 January 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 25-45, 48 and 49 is/are pending in the application.
- 4a) Of the above claim(s) 49 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 25-45 and 48 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/S5108)
Paper No(s)/Mail Date 11/06/08
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Status of Application

1. The remarks and amendments filed on 01/26/09 are acknowledged.
2. Claims 46-47 were cancelled. Claim 49 was withdrawn. Claim 25 was amended.
3. Claims 25-45 and 48 are included in the prosecution.

Information Disclosure Statement

4. The information disclosure statement (IDS) submitted on 11/06/08 is acknowledged. The submission is in compliance with the provisions of 37 CFR 1.97 and 1.98. Accordingly, the examiner is considering the information disclosure statement.

See attached copy of PTO-1449.

Response to Arguments

Rejection of claim 46 under 35 USC § 112, second paragraph

5. In light of Applicant's cancellation of claim 46, the rejection of this claim under 35 USC § 112, second paragraph is rendered moot.

Rejection of claims 25-28, 31-32, 37-42, 44-45 and 47-48 under 35 USC § 102(b)

6. In light of Applicant's cancellation of claim 47, the rejection of this claim under 35 USC § 102(b) is rendered moot.
7. In light of Applicant's amendment of claim 25 to include the limitation of the preparation "further comprises a thickener free of pyrogenic silica", the rejection of claims 25-28, 31-32, 37-42, 44-45 and 48 under 35 USC § 102(b) as being anticipated by Ramin (US 5,833,967) is withdrawn.

8. However, upon further consideration, a new ground(s) of rejection is made in view of McMullen (US 5,800,825).

Rejection of claims 25-32 and 37-38 under 35 USC § 102(b)

9. In light of Applicant's amendment of claim 25 to include the limitation of the preparation "further comprises a thickener free of pyrogenic silica", the rejection of claims 25-32 and 37-38 under 35 USC § 102(b) as being anticipated by de la Poterie et al. (US 6,267,950 B1) is withdrawn.

10. However, upon further consideration, a new ground(s) of rejection is made in view of McMullen (US 5,800,825).

Rejection of claim 43 under 35 USC § 103(a)

11. In light of Applicant's amendment of claim 25 to include the limitation of the preparation "further comprises a thickener free of pyrogenic silica", the rejection of claim 43 under 35 USC § 103(a) as being unpatentable over Ramin (US 5,833,967) is withdrawn.

12. However, upon further consideration, a new ground(s) of rejection is made in view of McMullen (US 5,800,825).

Rejection of claims 33-36 under 35 USC § 103(a)

13. In light of Applicant's amendment of claim 25 to include the limitation of the preparation "further comprises a thickener free of pyrogenic silica", the rejection of claims 33-36 under 35 USC § 103(a) as being unpatentable over de la Poterie et al. (US 6,267,950 B1) is withdrawn.

14. However, upon further consideration, a new ground(s) of rejection is made in view of McMullen (US 5,800,825).

Rejection of claim 46 under 35 USC § 103(a)

15. In light of Applicant's cancellation of claim 46, the rejection of this claim under 35 USC § 103(a) as being unpatentable over de la Poterie et al. (US 6,267,950 B1) in view of Arraudeau et al. (US 5,053,220) is rendered moot.
16. Since the new ground(s) of rejection were necessitated by Applicant's amendments, this action is made FINAL.

Claim Rejections - 35 USC § 103

17. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

18. Claims 25-28, 31-32, 37-45, and 48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ramin (US 5,833,967) in view of McMullen (US 5,800,825).

The claimed invention is an aqueous-based preparation for application to hair, eyelashes and eyebrows comprises a mixture of at least two aqueous dispersions of film-forming polymers. One dispersion is a polyurethane-based polymer. The other dispersion is an acrylic-based polymer. The preparation further comprises a thickener free of pyrogenic silica and has a viscosity in the range of between 0.02 and 3.8 Pa s measured at 25°C and with 200 s⁻¹.

Ramin teaches a composition comprising film forming materials chosen from acrylic resins and polyurethanes (Col. 2, lines 15-19). Ramin discloses particles of film-forming polymer dispersed in an aqueous medium (Col. 2, lines 39-41). Polyester-

polyurethanes, polyether-polyurethanes, acrylic, and acrylic styrene polymers are disclosed (Col. 2, lines 42-47). Examples 4 and 5 disclose a dispersion of acrylic polymer (40% solids content) at 38% by weight of the composition and a dispersion of polyurethane (30% solids content) at 50% by weight of the composition (Col. 5, line 45 to Col. 6, line 5). The composition may comprise plasticizers (Col. 2, line 29), wetting agents, antifoaming agents, preserving agents, pigments (Col. 3, lines 49-59). Rheological agents such as cellulose derivatives, and gums such as guar, carob and xanthan are disclosed (Col. 2, lines 35-38). Example 4 contains silicic acid (which is a mineral thickener) at 0.7% by weight of the composition (Col. 5, lines 45-55). The composition may be in the form of a nail varnish, a hair product or a mascara (Col. 1, lines 10-12) and can be used to reinforce keratin substances such as nails, hair and eyelashes (Col. 1, lines 58-61).

Ramin does not expressly teach a formulation with a thickener free of pyrogenic silica.

McMullen teaches a mascara formulation with magnesium aluminum silicate as a thickener (Col. 3, lines 47-60 and Examples 1-4, Col 6, line 31 to Col. 8, line 20).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to make a composition comprising film forming materials such as acrylic resins and polyurethanes and thickeners such as silicic acid, as taught by Ramin, substitute the silicic acid with the silicate thickener in a mascara formulation, as taught by McMullen, and produce the instant invention.

One of ordinary skill in the art would do this because the use of silicate thickeners in a mascara formulation is known in the art, as evidenced by McMullen. Simple substitution of one known element for another to obtain predictable results would have been obvious to one of ordinary skill in the art. Please see MPEP 2141.

From the teachings of the references, it is apparent that one of ordinary skill in the art would have had a reasonable expectation of success in producing the claimed invention. Therefore, the invention as a whole was *prima facie* obvious to one of ordinary skill in the art at the time the invention was made, as evidenced by the references, especially in the absence of evidence to the contrary.

Regarding instant claim 25, the limitation of an aqueous-based preparation for application to hair, eyelashes and eyebrows that comprises a mixture of at least two aqueous dispersions of film-forming polymers would have been obvious over the composition comprising film forming materials chosen from acrylic resins and polyurethanes (Col. 2, lines 15-19) and the hair product or mascara (Col. 1, lines 10-12) that can be used to reinforce keratin substances such as nails, hair and eyelashes (Col. 1, lines 58-61) as taught by Ramin. The limitations of a polyurethane-based polymer dispersion and an acrylic-based polymer dispersion would have been obvious over the polyester-polyurethanes, polyether-polyurethanes, acrylic, and acrylic styrene polymers disclosed by Ramin (Col. 2, lines 42-47). Furthermore, Ramin discloses a dispersion of acrylic polymer (40% solids content) at 38% by weight of the composition and a dispersion of polyurethane (30% solids content) at 50% by weight of the composition (Examples 4 & 5, Col. 5, line 45 to Col. 6, line 5). The limitation of the preparation

further comprising a thickener free of pyrogenic silica would have been obvious over the silicate thickener used in the formulation by McMullen (Col. 3, lines 47-60 and Examples 1-4, Col 6, line 31 to Col. 8, line 20). The limitation of a viscosity in the range of between 0.02 and 3.8 Pa·s measured at 25°C and with 200 s⁻¹ would have been obvious over the composition with the two aqueous dispersions (of polyurethane and acrylic based polymer) will intrinsically have a viscosity in the range of between 0.02 and 3.8 Pa·s measured at 25°C and with 200 s⁻¹. A chemical composition and its properties are inseparable (MPEP 2112.01). Therefore, if the prior art teaches the identical chemical structure, the properties applicant discloses and/or claims are necessarily present. Moreover, the recited viscosity range is a modifiable parameter that one of ordinary skill in the art can vary during the process of routine experimentation based on the desired thickness or viscosity of the end product (mascara).

Regarding instant claim 26, the limitation of the polyurethane-based polymer would have been obvious over the polyester-polyurethanes, polyether-polyurethanes, acrylic, and acrylic styrene polymers disclosed by Ramin (Col. 2, lines 42-47).

Regarding instant claim 27, the limitation of the aqueous dispersions forming between 50 and 90% by wt. with respect to the wt. of the final preparation would have been obvious over the dispersion of acrylic polymer (40% solids content) at 38% by weight of the composition and a dispersion of polyurethane (30% solids content) at 50% by weight of the composition, as disclosed by Ramin (Example 4 and 5, Col. 5, line 45 to Col. 6, line 5).

Regarding instant claim 28, the limitation of the polyurethane-based polymer that is present in an amount of between 1 and 60% by wt. with respect to the weight of the final preparation would have been obvious over the dispersion of polyurethane (30% solids content) at 50% by weight of the composition, as disclosed by Ramin (Example 4 and 5, Col. 5, line 45 to Col. 6, line 5).

Regarding instant claims 31-32, the limitation of the acrylic based polymer would have been obvious over the acrylic styrene polymers disclosed by Ramin (Col. 2, lines 42-47).

Regarding instant claims 37-40, the limitation of the conventional constituents would have been obvious over the composition that may comprise plasticizers (Col. 2, line 29), wetting agents, antifoaming agents, preserving agents, pigments (Col. 3, lines 49-59), as disclosed by Ramin (Col. 2, lines 42-47), in view of the silicate thickener disclosed by McMullen (Col. 3, lines 47-60 and Examples 1-4, Col 6, line 31 to Col. 8, line 20).

Regarding instant claims 41-42, the limitation of the polysaccharide, mineral thickener and the vegetable gum would have been obvious over the cellulose derivatives, and gums such as guar, carob and xanthan disclosed by Ramin (Col. 2, lines 35-38) in view of the silicate thickener taught by McMullen (Col. 3, lines 47-60 and Examples 1-4, Col 6, line 31 to Col. 8, line 20).

Regarding instant claim 43, the limitation of the cellulose, silicate and xanthan gum that are present in a ratio of between 1:1:4 and 1:2:6 would have been obvious over the cellulose derivatives, and xanthan disclosed by Ramin (Col. 2, lines 35-38) in

view of the silicate thickener taught by McMullen (Col. 3, lines 47-60 and Examples 1-4, Col 6, line 31 to Col. 8, line 20). The amount of cellulose, silicate and xanthan can be manipulated by one of ordinary skill in recited ratio the art during the process of routine experimentation and the recited ratio would have been an obvious variant unless there is evidence of criticality and unexpected results.

Regarding instant claims 44-45, the limitation of the thickener that is present in an amount of between 0.2 and 20% by wt. with respect to the final composition would have been obvious over the 1% silicate thickener used by McMullen in the mascara formulation (Examples 1-4, Col 6, line 31 to Col. 8, line 20).

Regarding instant claim 48, the limitation of the preparation of claim 45 that comprises make up for the eyes and eyelashes would have been obvious over the mascara (Col. 1, lines 10-12) that can be used to reinforce keratin substances such as nails, hair and eyelashes (Col. 1, lines 58-61) as taught by Ramin and by the mascara formulation taught by McMullen (Examples 1-4, Col 6, line 31 to Col. 8, line 20).

19. Claims 25-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over de la Poterie et al. (US 6,267,950 B1) in view of McMullen (US 5,800,825).

de la Poterie teaches a composition comprising an aqueous dispersion of film-forming polymer particles comprising a polyurethane (Col. 1, lines 39-45). The viscosity of the composition is at least 2 Pa.s., measured at 23°C at a rotation rate of 100 rpm (Col. 2, lines 26-43). The film forming polymers includes free-radical film-forming polymers obtained by polymerization of unsaturated monomers, in particular ethylenic monomers, including acrylic polymers, monomers containing an acid group such as α,β -

ethylenic carboxylic acids such as acrylic acid, methacrylic acid, crotonic acid, maleic acid and itaconic acid (Col. 3, lines 32-57). Aryl and alkyl methacrylates are disclosed (Col. 4, lines 5-8). Styrene monomers are also disclosed (Col. 4, lines 28-29). de la Poterie teaches that it is possible to use any monomer which is known to the skilled person which falls into the categories of acrylic monomers (Col. 4, lines 30-34). Polyurethanes, polyurethane-polyvinylpyrrolidones, polyester-polyurethanes and polyether-polyurethanes are disclosed (Col. 4, lines 42-47). The "aqueous dispersion of film-forming polymer particles which can be used is an aqueous dispersion of an anionic polyester-polyurethane wherein the polyurethane particle size is in the range 2 to 100 nanometers" (Col. 5, lines 3-6). Additives to the composition include colorants, pigments, preserving agents (Col. 6, lines 46-51). Example 1 discloses a composition with an aqueous dispersion of anionic polyester-polyurethane at 47% by weight of the composition (47g/100g), and an aqueous dispersion of acrylate copolymer at 15% by weight of the composition (15g/100g) (Col. 7, lines 1-15). Therefore, both aqueous dispersions are 62% (47% + 15%) by weight of the composition. Examples 2-8 also disclose compositions with an aqueous dispersion of a polyester-polyurethane and an aqueous dispersion of an acrylate copolymer (Col. 7, line 40 to Col. 8, line 15).

de la Poterie does not expressly teach a formulation with a thickener free of pyrogenic silica.

McMullen teaches a mascara formulation with magnesium aluminum silicate as a thickener (Col. 3, lines 47-60 and Examples 1-4, Col 6, line 31 to Col. 8, line 20).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to make a composition comprising an aqueous dispersion of film

forming materials such as acrylic polymers and polyurethanes, as taught by Ramin, combine it with the use of a silicate as a thickener in a mascara formulation, as taught by McMullen, and produce the instant invention.

One of ordinary skill in the art would do this because the use of silicate thickeners in a mascara formulation is known in the art, as evidenced by McMullen. One of ordinary skill in the art at the time the invention was made would choose from a finite number of predictable mineral thickeners with a reasonable expectation of success of producing a functional product (such as a mascara) with a silicate thickener.

Regarding instant claim 25, the limitation of an aqueous-based preparation for application to hair, eyelashes and eyebrows that comprises a mixture of at least two aqueous dispersions of film-forming polymers would have been obvious over the composition comprising an aqueous dispersion of film-forming polymer particles comprising a polyurethane (Col. 1, lines 39-45) and acrylic acid polymers (Col. 3, lines 32-57) as taught by de la Poterie, in view of the mascara composition taught by McMullen (Col. 3, lines 47-60 and Examples 1-4, Col 6, line 31 to Col. 8, line 20). The limitations of a polyurethane-based polymer dispersion and an acrylic-based polymer dispersion would have been obvious over the polyurethane (Col. 1, lines 39-45) and acrylic acid polymers (Col. 3, lines 32-57) as taught by de la Poterie. Furthermore, de la Poterie discloses (in Example 1) a composition with an aqueous dispersion of anionic polyester-polyurethane at 47% by weight of the composition (47g/100g), and an aqueous dispersion of acrylate copolymer at 15% by weight of the composition (15g/100g) (Col. 7, lines 1-15). Therefore, both aqueous dispersions are 62% (47% +

15%) by weight of the composition. The limitation of the preparation further comprising a thickener free of pyrogenic silica would have been obvious over the silicate thickener used in the formulation by McMullen (Col. 3, lines 47-60 and Examples 1-4, Col 6, line 31 to Col. 8, line 20). The limitation of a viscosity in the range of between 0.02 and 3.8 Pa.s measured at 25°C and with 200 s⁻¹ would have been obvious over the viscosity of the composition that is at least 2 Pa.s., measured at 23°C at a rotation rate of 100 rpm, as taught by de la Poterie (Col. 2, lines 26-43). The recited viscosity range is a modifiable parameter that one of ordinary skill in the art can vary during the process of routine experimentation based on the desired thickness or viscosity of the end product (mascara).

Regarding instant claim 26, the limitation of the polyurethane-based polymer would have been obvious over the polyurethanes, polyurethane-polyvinylpyrrolidones, polyester-polyurethanes and polyether-polyurethanes disclosed by de la Poterie (Col. 4, lines 42-47).

Regarding instant claim 27, the limitation of the aqueous dispersions forming between 50 and 90% by wt. with respect to the wt. of the final preparation would have been obvious over the composition with an aqueous dispersion of anionic polyester-polyurethane at 47% by weight of the composition (47g/100g), and an aqueous dispersion of acrylate copolymer at 15% by weight of the composition (15g/100g) (Col. 7, lines 1-15), as taught by de la Poterie. The calculated amount of both aqueous dispersions is 62% (47% + 15%) by weight of the composition.

Regarding instant claim 28, the limitation of the polyurethane-based polymer that is present in an amount of between 1 and 60% by wt. with respect to the weight of the final preparation would have been obvious over the aqueous dispersion of anionic polyester-polyurethane at 47% by weight of the composition (47g/100g) as taught by de la Poterie (Col. 7, lines 1-15).

Regarding instant claims 29-32, the limitation of the acrylic based polymer would have been obvious over the ethylenic monomers, including acrylic polymers, monomers containing an acid group such as α,β -ethylenic carboxylic acids such as acrylic acid, methacrylic acid, crotonic acid, maleic acid and itaconic acid (Col. 3, lines 32-57), aryl and alkyl methacrylates (Col. 4, lines 5-8), and styrene monomers (Col. 4, lines 28-29) taught by de la Poterie. de la Poterie also teaches that it is possible to use any monomer which is known to the skilled person which falls into the categories of acrylic monomers (Col. 4, lines 30-34).

Regarding instant claim 33, the limitation of the particle size would have been obvious over the particle size of the polyurethane in the aqueous dispersion taught by de la Poterie (Col. 5, lines 3-6). One of ordinary skill in the art would modify the particle size of the polyurethane in the aqueous dispersion because the particle size of the polyurethane or the acrylic polymer are modifiable parameters and can be varied during the process of routine experimentation. The recited particle size range would have been an obvious variant unless there is evidence of criticality or unexpected results.

Regarding instant claims 34-36, the limitation of the polymers in the dispersion with film-forming temperatures of below 30°C, the limitation of at least 30% by wt. of the

polymers that are water resistant in the dried condition and have a glass transition temperature of below 10 °C, and the limitation of between 5 and 30% by wt. of one or more of the dispersions having a block or portion whose glass transition temperature in the dried condition is higher than 30°C, would have been obvious over the polymers in the aqueous dispersions taught by de la Poterie (Col. 7, lines 1-15). The film forming temperature and glass transition temperature are intrinsic properties of the polymer. A chemical composition and its properties are inseparable (MPEP 2112.01). Therefore, if the prior art teaches the identical chemical structure, the properties applicant discloses and/or claims are necessarily present.

Regarding instant claims 37-40, the limitation of the conventional constituents would have been obvious over the additives to the composition including colorants, pigments, and preserving agents, as taught by de la Poterie (Col. 6, lines 46-51) in view of the silicate thickener taught by McMullen (Col. 3, lines 47-60 and Examples 1-4, Col 6, line 31 to Col. 8, line 20).

Conclusion

20. No claims are allowed.

21. Since this new rejection was necessitated by applicant's amendment, **THIS ACTION IS MADE FINAL**. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

22. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aradhana Sasan whose telephone number is (571) 272-9022. The examiner can normally be reached Monday to Thursday from 6:30 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Woodward, can be reached at 571-272-8373. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Aradhana Sasan/
Examiner, Art Unit 1615

/MP WOODWARD/
Supervisory Patent Examiner, Art Unit 1615